The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

January 10, 2008

The Honorable Naida L. Kaen, Chairman
House Science, Technology, and Energy Committee
Legislative Office Building, Room 304
Concord, NH 03301

Re: HB 1434 relative to authorizing the Department of Environmental Services and the Public Utilities Commission to adopt rules to implement the Regional Greenhouse Gas Initiative (RGGI)

Dear Chairman Kaen and Members of the Committee:

The Department of Environmental Services (DES) is pleased to testify in support of House Bill 1434, which authorizes the DES and the Public Utilities Commission (PUC) to adopt rules to implement the Regional Greenhouse Gas Initiative (RGGI), a cooperative regional effort in ten Northeast and Mid-Atlantic states (ME, VT, MA, CT, RI, NY, NJ, MD, & DE). RGGI is a flexible, market-driven policy that begins to address the issue of climate change by capping and then modestly reducing regional carbon dioxide ($CO_2$) emissions from large fossil-fueled power plants. The policy puts the electricity industry on a path toward reducing long-term energy costs by greater investment in energy efficiency and creates a market signal that encourages development of cleaner energy sources and more local energy sources, thereby increasing New Hampshire's energy independence.

Market-based implementation will result in competition, efficiency, and innovation that will deliver emission reductions at the lowest possible cost. New Hampshire's participation will allow the state to mitigate the unavoidable electricity cost impact of RGGI implementation throughout the rest of the ten state region, as compliance costs will be reflected in the regional wholesale price of electricity. This will be accomplished through the creation of a state fund to increase energy efficiency from the sale of RGGI allowances.

It is expected that each state in the RGGI region will adopt its own implementing laws and regulations by the end of 2008. A Memorandum of Understanding (MOU) and model rule, developed by a RGGI interstate workgroup, forms the framework for individual state regulatory proposals to adopt and implement the program. HB 1434 as currently proposed reflects the major provisions of these documents and authorizes the Department to adopt state specific rules for implementation.

The RGGI market based program is known as "cap and trade" (further described below). The regional cap is initially set at a limit reflective of current emissions, and reduced further over time. Total emissions in the RGGI states may not increase from 2009 to 2014, and then must fall by 2.5 percent per year through 2018, so that by 2019 they must be at least 10 percent below the projected 2009 level. Modeling forecasts suggest that without RGGI, emissions from power

plants in the region would grow by 7 percent from 2009 to 2019. Thus, compared to "business as usual," RGGI is designed to cut emissions by around 17 percent over the projected life of the program.

There are several significant benefits to implementing RGGI in New Hampshire. First, and foremost, is that New Hampshire is economically better off participating in RGGI than not. RGGI implementation in the other nine states in the region will increase electricity costs regionally, and approximately half of the state's power consumption is purchased from the regional grid. If New Hampshire participates this additional cost can be offset by the sale of RGGI allowances allocated to New Hampshire, and reinvesting the proceeds in energy efficiency measures.

RGGI is also an economic and environmental "win-win," a pro-business strategy that:

- helps to mitigate and ultimately reduce long-term energy costs via greater investment in energy efficiency;
- creates a market signal that encourages development of cleaner and, in many cases, more local energy sources;
- increases our energy independence with more local energy sources, thus keeping more energy dollars local;
- starts to reduce greenhouse gas (GHG) emissions to avoid the most deleterious projections of climate change impacts;
- increases economic opportunities for NH businesses for development of clean energy technologies, and;
- places NH generators in an advantaged position to respond to future federal policies and better manage carbon constrained energy markets.

A cap and trade program is a market-based system that places a limit (or "cap") on emissions. Under RGGI, a regional $CO_2$ emissions cap is set for large fossil fuel-fired power plants beginning in 2009. Allowances are issued equal to the total cap and apportioned to the participating states. An allowance is an authorization to emit one ton of a pollutant. Regulated power plants must acquire via purchase, "trade," or allocation enough allowances to cover their emissions for a specified compliance period. Thus, a plant can emit as much as necessary, as long as it obtains sufficient allowances to cover its total emissions. Facilities may also bank allowances for later use. Because the number of allowances is limited by the regional cap, overall emission reductions are assured.

Cap and trade systems create a financial incentive for emission reductions by assigning a cost to emissions and a benefit to emission reductions. Those that are able to reduce emissions at a low cost will need less allowances, thus making lower cost allowances available to companies facing higher emission reduction costs. Cap and trade systems set a clear limit on emissions and give companies flexibility in the manner in which they may achieve their emission targets, thus resulting in significant savings to the regulated community while achieving greater environmental benefits.

Each of the state's affected power plants (i.e., Public Service Company of New Hampshire's (PSNH's) Bow, Newington, and Portsmouth plants, Granite Ridge Energy's (GRE's) Londonderry plant, and Newington Energy's (NEL's) Newington plant) must obtain enough allowances at the end of each three year period to equal their emissions in that same period. Each allowance represents one ton of $CO_2$ emissions. Allowances could be obtained by each affected power plant by: purchasing allowances that are budgeted to New Hampshire (or to other states) either at quarterly regional auctions or from a secondary market; purchasing offset allowances from developers of certain projects that reduce $CO_2$ emissions outside the electricity sector, or; reducing $CO_2$ emissions and $CO_2$ emission rates prior to the start of the program (e.g., PSNH's Northern Wood Power Project). As HB 1434 is proposed, PSNH will also be given a limited amount of allowances in order to transition from the New Hampshire Clean Power Act to RGGI. Regionally, power plants could reduce the amount of allowances needed for compliance by reducing emissions via increased investments in energy efficiency, increasing renewable energy generation as required by states' Renewable Portfolio Standards (RPSs), increasing dispatch of lower-emitting generation (e.g., natural gas-fired plants), development and future installation of carbon capture technologies, or a combination of all of the above.

The University of New Hampshire's Whittemore School of Business and Economics recently conducted an analysis (the UNH study) of the impact of implementing RGGI on New Hampshire ratepayers and the economy. The UNH study concluded that overall there would be a net positive economic and environmental benefit. The lowest long-term net utility cost is to auction allowances and invest the revenues in energy efficiency projects as currently proposed under HB 1434. If New Hampshire does not participate in RGGI, then it receives no revenues from the sale of allowances, and costs would be higher. For that reason, DES supports selling as many allowances as possible at the regional auction. This would mean 74% of New Hampshire's 8.62 million allowances, or 6.38 million allowances until any transitional Clean Power Act allowances awarded to PSNH have been fully allocated, and ultimately up to 99%. The remaining 1% would be set-aside to account for avoided emissions from the sale of voluntary Renewable Energy Certificates (RECs). The amount equivalent to the avoided emissions would be permanently retired. Revenues from the sale of allowances would be placed in a fund administered by the Public Utilities Commission to be used primarily for energy efficiency, because that will yield long term energy savings and further reduce emissions, making future compliance easier.

The proposed bill is the product of an extensive stakeholder process that began in the fall of 2003 and continued into this year's legislative session. Stakeholders included electric utilities, renewable energy producers (wind, hydroelectric, solar, biomass, etc.), environmental interests, and implementing regulatory agencies. DES believes the current bill language strikes a reasonable compromise in the best interest of all stakeholders. RGGI provides a competitive environment for less polluting resources, and sends a market signal to investors in lower-emitting or non-emitting energy projects.

While the RGGI program design is intended to ultimately result in long term economic and environmental benefit, it also includes several protections intended to minimize, if not

completely avoid, detrimental economic developments. Foremost, the initial cap is generally reflective of current emission levels and additional reductions are not required until 2015. Other protective program design elements include substantial compliance flexibility mechanisms such as:

- banking;
- early reductions;
- offsets, and;
- 3-year compliance periods and potential 1-year compliance period extensions.

Lastly, the proposed auction format, in which affected sources may bid higher than the final clearing price (the price at which allowances are ultimately sold) in order to make sure they get at least some allowances, thus offering generators additional security in their bidding strategy.

Implementing RGGI for New Hampshire is good policy, as it makes sense both economically and environmentally. Stabilizing and then modestly reducing emissions of $CO_2$ that contribute to climate change is a good first step. This legislation, through the market signals it sends, will begin the process of creating a long term climate change action policy for New Hampshire.

DES looks forward to continuing to work with the sponsors and supporters of this bill as well as all who share an interest in addressing climate change to motivate further reductions of $CO_2$ emissions in New Hampshire and the region. Thank you for the opportunity to provide testimony. Should you have further questions or need additional information please feel free to contact Robert R. Scott, Director, Air Resources Division (271-1088, rscott@des.state.nh.us) or Joanne Morin, Administrator Technical Programs (271-5552, jmorin@des.state.nh.us).

Sincerely,

Thomas S. Burack



Thomas S. Burack
Commissioner

cc: HB 1434 sponsors